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ABSTRACT

The relationship between self concept and several measures of divergent thinking and related attitudes was investigated among the thirty-three boys and twenty-six girls in the fourth grade. They were given the Torrance Tests of Creative Thinking, Covington's Attitude Inventory for Problem Solving, and the Piers-Harris Self Concept Scale. High self concept pupils scored significantly greater than low self concept pupils on self evaluation of creative abilities and verbal fluency, flexibility and originality. Sex differences were also observed. The results provide empirical support for the frequently postulated positive relationship between self concept and "creative" ability. (Author/TL)

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Self-Concept, Divergent Thinking Abilities, and Attitudes About Creativity and Problem Solving[1]

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Many writers have argued that there is a strong, positive relationship between self-concept or self-image and creative behavior. The creative person has often been described as confident in his own ability, independent in thought and judgment, and unwilling to accept external authority uncritically (7,8,11,12). Kris (6) proposed that only persons of high confidence in their own ability, not fearful of being overwhelmed by others, could express without anxiety the "regression" necessary for creative behavior.

Despite the frequency of such assertions, however, there have been relatively few studies which directly examined the relationship between self-concept and creativity. The few studies which have been reported generally involved adolescents and adults; they have found some support for the proposed positive relationship. MacKinnon (7,8) reported, for example, that highly creative architects had stronger self-images than their less creative peers. Frequently, the highly creative architects

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viewed themselves as imaginative, active, independent, and enthusiastic, whereas their less creative peers saw themselves as responsible, sincere, and dependable. Barron (1) and Crutchfield (3) have also reported that highly creative persons display greater social independence and other characteristics associated with strong self-concept than less creative persons; a similar finding, with a sample of adolescents, was reported by Getzels and Jackson (5).

In studies with children, Weisberg and Springer (12) reported that children highest in creative ability showed personality characteristics which were related to positive self-image. Coopersmith (2) also found a positive relationship among creativity scores and subjective and behavioral indices of self-esteem, with a sample of 85 elementary school pupils.

The purpose of the present study was to examine the relationship between self-concept and several measures of divergent thinking and attitudes toward creative thinking and problem solving among fourth grade pupils.

Method

Thirty-three boys and 26 girls from fourth grade classes in a public school in an urban area in Indiana were given the Torrance Tests of Creative Thinking (11), the Childhood Attitude Inventory for Problem Solving (4), and the Piers-Harris Self-Concept Scale (9). These measures were considered to be valid and reliable for research utilization, although the writers clearly recognize that the scores yielded by the Torrance

Tests do not provide a comprehensive assessment of creative ability. All tests were administered in regular classroom settings by one of the writers and a research assistant. The Torrance Tests yielded seven sub-scores: verbal and non-verbal fluency, flexibility, and orginality, and non-verbal elaboration. The attitude inventory yielded two scores: an assessment of the respondent's general attitudes about creative thinking, and a more specific assessmentof the respondent's self-evaluation of his creative problem solving ability. The Piers-Harris test yielded a single score, consisting of the total number of "positive items" with which the respondent agreed and the total number of "negative items" with which he disagreed.

Procedure. Pupils were classified as high or low self-concept, dividing the distribution so that comparison groups approximated upper and lower thirds. For the entire sample, there were 19 pupils in each of the two resulting groups. Since consistent sex differences have been found on measures of divergent thinking (particularly on verbal tests), additional analyses were also conducted for both sexes. When the distribution of self-concept scores was divided for these analyses, the comparison groups consisted of 11 pupils in each group for boys, and nine in each group for girls.

High and low self-concept groups were then compared, using one-way ANOVA. Separate analyses were conducted for each of the seven divergent thinking scores, for each of the two sections of the attitude inventory, and for total scores on the attitude inventory.

Results

When upper and lower thirds of the total distribution of self-concept scores were compared, pupils in the high group scored significantly greater than pupils in the low group on self-evaluation of creative ability (20.68 vs. 15.21, $F = 17.27$, $p < .01$), on total score on the attitude inventory (34.26 vs. 26.37, $F = 11.42$, $p < .01$), and on the verbal fluency, flexibility, and originality. For fluency, the high and low group, eans were 18.79 and 10.00, respectively ($F = 14.00$, $p < .01$). For flexibility, high and low means were 8.47 and 5.26, respectively ($F = 10.60$, $p < .01$). For originality, means were 14.53 and 8.42 ($F = 8.88$, $p < .01$).

When separate analyses were conducted by sex of pupil, a number of significant relationships were also observed. All such differences were in the direction expected (i.e., the high self-concept group scores exceeded the scores of the low self-concept group).

Boys. For boys, significant differences were found on self-evaluation of creative ability (19.27 vs. 13.91, $F = 9.17$, $p < .01$), total attitude scores (33.00 vs. 24.00, $F = 8.87$, $p < .01$), and figural flexibility (15.00 vs. 11.09, $F = 4.56$, $p < .05$).

Girls. For girls, significant comparisons were: self-evaluation of creativity (21.56 vs. 16.78, $F = 5.96$, $p < .05$), total attitude score (34.45 vs. 25.78, $F = 6.52$, $p < .05$), and verbal fluency (22.56 vs. 12.78, $F = 7.68$, $p < .05$).

Discussion

Although this study was limited by the small number of cases, the results provide clear support for the existence of a positive relationship between self-concept scores and divergent thinking abilities, and between self-concept and attitudes and self-evaluations about creativity, among fourth grade pupils. Although it is not immediately clear why certain divergent thinking criteria appearmed more strongly related to self-concept than other, the problem appears to be suggestive for future research. In addition, replication of this study with a larger sample and at additional elementary school grade levels is planned.

Abstract

The relationship between self-concept and several measures of divergent thinking and related attitudes was investigated among fourth grade pupils.

Thirty-three boys and twenty-six girls from public schools were given the Torrance Tests of Creative Thinking, Covington's Attitude Inventory for Problem Solving, and the Piers-Harris Self-Concept Scale.

High self-concept pupils scored significantly greater than low self-concept pupils on self-evaluation of creative abilities and verbal fluency, flexibility, and orginality. Sex differences were also observed.

The results provide empirical support for the frequently-postulaed positive relationship between self-concept and "creative" abilities.

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